

In the Claims

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

1. (Cancelled)
2. (New) An electrically conductive circuit element formed on a surface using a drop-on-demand deposition technique to deposit multiple droplets of polymeric-based or inorganic-based fluid, the conductivity of the electrically conductive element being in the range from about 1 to about $4 \times 10^5 \text{ S.cm}^{-1}$.
3. (New) An element according to Claim 2, wherein the fluid comprises conductive particles.
4. (New) An element according to Claim 3, wherein the conductive particles have a dimension less than or equal to 1 micron.
5. (New) An element according to Claim 2, comprising a plurality of stacked electrically conductive elements connected by vias to provide electrical conduction between elements.
6. (New) An element according to Claim 5, comprising at least one isolation layer, the or each isolation layer being disposed between adjacent elements.
7. (New) An element according to any of Claims 2 to 6, comprising a plurality of discrete portions, each portion being formed from respective materials.
8. (New) An element according to Claim 2, the droplets comprising polyaniline material including a suitable electron injecting barrier material.
9. (New) An element according to Claim 8, wherein the barrier material is TCNQ.

10. (New) An element according to Claim 2, the fluid droplets comprising at least one of a sol-gel, an organically-modified ormocer, and an organically-modified silicate.
11. (New) An element according to Claim 2, wherein the circuit element is a diode.
12. (New) An element according to Claim 11, wherein the droplets are of polymeric-based material and the diode is a polymeric light emitting diode.
13. (New) An element according to Claim 12, wherein the polymeric-based fluid comprises polymeric electroluminescent material.
14. (New) An element according to Claim 13, wherein the polymeric-based fluid comprises one of PPV [poly(p-phenylene)] and MEH-PPV [pol(2-methoxy, 5-(2-ethylhexoxy)-1,4-phenylene-vinylene)].
15. (New) An element according to Claim 12, wherein the polymeric LED at least one of is adjacent to a nozzle array and surrounds the bore of a nozzle.
16. (New) A method of forming an electrically conductive circuit element on a surface using a drop-on-demand deposition technique to deposit droplets of polymeric-based or inorganic-based fluid, the method comprising depositing a plurality of droplets of said fluid to form the circuit element, the conductivity of the circuit element being in the range from about 1 to about $4 \times 10^5 \text{ S.cm}^{-1}$.
17. (New) A method according to Claim 16, wherein the fluid comprises conductive particles.
18. (New) A method according to Claim 17, wherein the conductive particles have a dimension less than or equal to 1 micron.

19. (New) A method according to Claim 16, wherein the circuit element comprises a plurality of stacked electrically conductive elements connected by vias to provide electrical conduction between elements.
20. (New) A method according to Claim 19, wherein the circuit element comprises at least one isolation layer, the or each isolation layer being disposed between adjacent elements.
21. (New) A method according to Claim 16, comprising subjecting the deposition material to radiation treatment before, during or after deposition.
22. (New) A method according to Claim 16, comprising curing the deposited fluid by exposing the deposited fluid to electromagnetic radiation.
23. (New) A method according to Claim 16, wherein the circuit element comprises a diode.
24. (New) A method according to Claim 16, wherein the circuit element comprises a plurality of discrete portions.
25. (New) A method of forming a diode using the technique of drop on demand printing to deposit droplets of deposition material, said method comprising depositing a plurality of droplets on a surface to form a patterned diode comprising a plurality of discrete portions.
26. (New) A method according to Claim 23, wherein the diode is a polymeric light emitting diode (LED).
27. (New) A method according to Claim 16, further comprising using an electrostatic spray head to deposit said deposition material.